

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

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**SECOND NOTICE OF PROPOSED MODIFICATIONS TO  
CALIFORNIA CODE OF REGULATIONS**

TITLE 8: Chapter 4, Subchapter 4, Article 12, Sections 1600 and 1601  
of the Construction Safety Orders (CSO)

**Pile Driving and Methods of Unloading Piles**

Pursuant to Government Code Section 11346.8(c), the Occupational Safety and Health Standards Board (Standards Board) gives notice of the opportunity to submit written comments on the above-named regulations for which further modifications are being considered as a result of Board members' comments and subsequent advisory committee consensus findings.

At the October 16, 2003 Business Meeting, the above-named regulations were proposed for adoption. However, the Standards Board expressed concern over whether the proposal, with modifications, reflected the consensus of the August 18, 2000 advisory committee convened to develop the proposal. The Board also expressed concern as to whether labor had been adequately represented at that meeting. Consequently, the Board directed staff to reconvene the advisory committee to revisit their concerns and obtain clarification on several issues. Board staff reconvened the advisory committee on January 7, 2004, whereby further modifications were made to the regulations.

A copy of the modified text and subsequent modifications are attached for your information. In addition, a copy of the January 7, 2004 Advisory Committee Minutes and the October 16, 2003 Business Meeting Summary are included.

Any written comments on these modifications must be received by 5:00 p.m. on March 25, 2004 at the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833. These proposed regulations will be scheduled for adoption at a future business meeting of the Standards Board.

The Standards Board's rulemaking files on the proposed action are open to public inspection Monday through Friday, from 8:00 a.m. to 4:30 p.m., at the Standards Board's office at 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833.

Inquiries concerning the proposed changes may be directed to the Executive Officer, Keith Umemoto at (916) 274-5721.

OCCUPATIONAL SAFETY AND HEALTH  
STANDARDS BOARD

Date: March 5, 2004

Keith Umemoto, Executive Officer

**PROPOSED MODIFICATIONS FOR 1<sup>st</sup> 15-DAY NOTICE**  
**(Modifications are indicated by bold, double-underlined for**  
**new language and bold, strikeout for deleted language.)**

**(Only modified pages are included.)**

STANDARDS PRESENTATION  
TO  
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,  
TITLE 8, CHAPTER 4

Amend Section 1600 as follows:

§1600. Pile Driving.

(a) Site-Specific Safety Plan.

(1) ~~Prior to the start of the job the employer shall develop a~~ A written safety plan specific to the job site ~~shall be developed, implemented and maintained by a competent person and the identity of the competent person shall be documented. The site-specific safety plan shall be developed prior to the start of the job and shall~~ ~~that~~ includes, but ~~is~~ not ~~be~~ limited to the following elements:

(A) An outline of the construction plan and the steps involved in drilling and/or driving piles.

(B) A list of the potential safety and health hazards for each step and procedures necessary to protect employees from identified hazards including:

1. Means and methods to minimize employee exposure to an operating drill and/or hammer.

2. Means and methods to provide safe access, handling, storage, and setup of piles, equipment and vehicles.

(C) A projected work schedule and minimum number of employees needed to safely complete each step.

(D) Special job procedures, equipment and/or training such as ~~for~~ **but not limited to** blasting operations, shoring, -sloping and benching requirements, emergency response procedures, traffic control, confined space operations, proximity to overhead lines, **and** work over water, ~~etc.~~

(2) **Any changes to the site-specific safety plan shall be approved by the competent person and the identity of the competent person shall be documented.**

~~(2)(3)~~ A copy of the Site-Specific Safety Plan **with all approved changes** shall be available on site and shall be provided to the Division upon request.

~~(b) (a) When conditions are such that a worker might logically be expected to work or be under the hammer, the hammer shall be secured in the leads by means of an adequate chock, toggle, or other device to safely support the hammer.~~

EXCEPTION: Where it is necessary for a worker, momentarily, to lean through the leads to spot a pile under hammer, it is not required that the hammer be secured in the leads.

A blocking device, capable of safely supporting the weight of the hammer, shall be provided for placement in the leads under the hammer at all times while employees are working under the hammer.

~~(b) Steam hose leading to a steam or jet pipe shall be securely attached to the hammer with an adequate length of at least 1/4-inch diameter chain or equivalent rated capacity wire rope to prevent whipping in the event the joint of the hammer is broken. Air hammer hoses shall be provided with the same protection as required for steam lines.~~

(c) **Steam and air hammer hose connections.**

Safety chains, or equivalent means, shall be provided for each hose connection to prevent the line from thrashing around in case the coupling becomes disconnected.

STANDARDS PRESENTATION  
TO  
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,  
TITLE 8, CHAPTER 4

(1) All pile driver hose connections including those to pile driver hammers, pile ejectors, or jet pipes shall be securely tethered with an adequate length of at least ¼ inch (0.635 cm) alloy steel chain having 3,250 pounds (1,500 kg) rated capacity (working load limit), or equivalent strength alloy steel cable, to prevent the line from thrashing around in case the coupling becomes disconnected.

(2) Chains or wire rope shall not be shortened with knots, bolts or other makeshift devices.

(d) Wherever it is necessary for ~~workers~~ employees to work aloft on pile drivers ~~in normal operation~~ while pile is being driven, and the fall distance exceeds 7 ½ feet, working platforms shall be provided.

Such platforms shall be of sufficient size so that the ~~worker~~ employee can easily avoid contact with the hammer. It shall be surrounded on all sides, except between the hammer leads, with a railing or guard line 42 ~~inches~~ to 45 inches in height. Guard lines shall be ~~drawn~~ taut and shall be at least 3/8 inch wire rope, ~~or 1-inch Manila rope~~ or equivalent. If rigid railings are used, they shall be constructed in accordance with ~~provisions of Section 1620, Article 16, with the~~ EXCEPTION: ~~that Pipe or structural steel railings may be used if of equivalent strength may be~~ used.

(e) ~~Precautionary measures~~ Precautions shall be taken to ensure that objects are secured against wind and accidental displacement, to ~~which will~~ prevent tools, material, and equipment from falling off elevated platforms. There shall be a toe board at least 3 1/2 inches high Toeboards shall be installed on all sides of the platform in accordance with Section 1621(b).

(f) ~~Fixed~~ Leads shall be provided with a ladder, and adequate rings, or similar attachment points, so that the ~~loft worker~~ employee may engage the a personal fall ~~arrest~~ protection system to the leads. The personal fall ~~arrest~~ protection system used shall comply with the requirements of ~~Section 1670~~ Article 24. ~~If the leads are provided with loft platform(s), such platform(s) shall be protected by standard guardrails.~~

(g) Stirrups shall be provided for use on sheet piles or a mechanical device shall be used to guide the pile into place. If a ~~worker~~ an employee is required to go aloft on sheet piling, the ~~worker~~ employee shall use a ladder ~~or be carried up in a boatswain's chair.~~

EXCEPTION: Where it is unsafe to use a ladder, a boatswain's chair may be used in accordance with Section 1662.

(h) ~~The worker~~ Employee(s) shall not ride the hammer.

(i) Where work is to be performed, walkways at least 20 inches in width shall be provided across piles or other open work with the exception of those piles on which the driver is standing.

(j) Where a drop hammer is used for driving piling other than sheet piling, a driving head or bonnet shall be provided to bell the head of the pile and hold it true in the leads.

(k) Ring buoys shall be provided in accordance with Article 13 and located where readily available at intervals not exceeding 200 feet on all structures over water under the course of construction.

**PROPOSED MODIFICATIONS FOR 2<sup>ND</sup> 15-DAY NOTICE**  
**(Modifications are indicated by bold, italics and double-underlined for new language and bold, italics, strikeout for deleted language.)**

**(Only modified pages are included.)**

STANDARDS PRESENTATION  
TO  
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,  
TITLE 8, CHAPTER 4

Amend Section 1600 as follows:

§1600. Pile Driving.

~~(a) Site-Specific Safety Plan.~~

~~(1) Prior to the start of the job the employer shall develop a written safety plan specific to the job site shall be developed, implemented and maintained by a competent person and the identity of the competent person shall be documented. The site-specific safety plan shall be developed prior to the start of the job and shall that includes, but is not be limited to the following elements:~~

~~(A) An outline of the construction plan and the steps involved in drilling and/or driving piles.~~

~~(B) A list of the potential safety and health hazards for each step and procedures necessary to protect employees from identified hazards including:~~

- ~~1. Means and methods to minimize employee exposure to an operating drill and/or hammer.~~
- ~~2. Means and methods to provide safe access, handling, storage, and setup of piles, equipment and vehicles.~~

~~(C) A projected work schedule and minimum number of employees needed to safely complete each step.~~

~~(D) Special job procedures, equipment and/or training such as for but not limited to blasting operations, shoring, sloping and benching requirements, emergency response procedures, traffic control, confined space operations, proximity to overhead lines, and work over water, etc.~~

~~(2) Any changes to the site-specific safety plan shall be approved by the competent person and the identity of the competent person shall be documented.~~

~~(2)(3) A copy of the Site-Specific Safety Plan with all approved changes shall be available on site and shall be provided to the Division upon request.~~

~~(a) A danger zone shall be clearly delineated around the operating hammer where employees involved in cutting, chipping or welding operations shall be prohibited so as to protect them from the hazards of falling objects.~~

~~(1) The employer shall establish the danger zone.~~

~~(2) The danger zone shall be maintained under the supervision of a competent person.~~

~~(b) (a) When conditions are such that a worker might logically be expected to work or be under the hammer, the hammer shall be secured in the leads by means of an adequate chock, toggle, or other device to safely support the hammer.~~

~~EXCEPTION: Where it is necessary for a worker, momentarily, to lean through the leads to spot a pile under hammer, it is not required that the hammer be secured in the leads.~~

~~A blocking device, capable of safely supporting the weight of the hammer, shall be provided for placement in the leads under the hammer **and used** at all times while employees are working under the hammer.~~

~~EXCEPTION: Where it is necessary for a worker, momentarily, to lean through the leads to spot a pile under hammer, it is not required that the hammer be secured in the leads.~~

STANDARDS PRESENTATION  
TO  
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,  
TITLE 8, CHAPTER 4

(b) ~~Steam hose leading to a steam or jet pipe shall be securely attached to the hammer with an adequate length of at least 1/4 inch diameter chain or equivalent rated capacity wire rope to prevent whipping in the event the joint of the hammer is broken. Air hammer hoses shall be provided with the same protection as required for steam lines.~~

(c) Steam and air hammer hose connections.

~~Safety chains, or equivalent means, shall be provided for each hose connection to prevent the line from thrashing around in case the coupling becomes disconnected.~~

(1) All pile driver hose connections including those to pile driver hammers, pile ejectors, or jet pipes shall be securely tethered with an adequate length of at least 1/4 inch (0.635 cm) alloy steel chain having 3,250 pounds (1,500 kg) rated capacity (working load limit), or equivalent strength alloy steel cable, to prevent the line from thrashing around in case the coupling becomes disconnected.

(2) Chains or wire rope shall not be shortened with knots, bolts or other makeshift devices.

~~***(d) Wherever it is necessary for workers employees to work aloft on pile drivers in normal operation while pile is being driven, and the fall distance exceeds 7 1/2 feet, working platforms shall be provided.***~~

~~***Such When used,*** platforms shall be of sufficient size so that the ~~worker~~ employee can easily avoid contact with the hammer. It shall be surrounded on all sides, except between the hammer leads, with a railing or guard line 42 inches to 45 inches in height. Guard lines shall be ~~drawn~~ taut and shall be at least 3/8 inch wire rope, or 1-inch Manila rope or equivalent. If rigid railings are used, they shall be constructed in accordance with ~~provisions of Section 1620, Article 16,~~ with the~~

~~EXCEPTION: that~~ Pipe or structural steel railings may be used if of equivalent strength may be used.

~~(e) Precautionary measures~~ Precautions shall be taken to ensure that objects are secured against wind and accidental displacement, to which will prevent tools, material, and equipment from falling off elevated platforms. There shall be a toe board at least 3 1/2 inches high Toeboards shall be installed on all sides of the platform in accordance with Section 1621(b).

~~(f) Fixed~~ Leads shall be provided with a ladder, and adequate rings, or similar attachment points, so that the ~~left~~ worker employee may engage the a personal fall arrest protection system to the leads. The personal fall arrest protection system ~~used~~ shall comply with the requirements of ~~Section 1670 Article 24.~~ If the leads are provided with ~~left~~ platform(s), such platform(s) shall be protected by standard guardrails.

~~(g) Stirrups shall be provided for use on sheet piles or a mechanical device shall be used to guide the pile into place. If a worker~~ an employee is required to go aloft on sheet piling, the worker employee shall use an aerial device or ladder or be carried up in a boatswain's chair. EXCEPTION: Where it is unsafe to use an aerial device or ladder, a boatswain's chair may be used in accordance with Section 1662.

**JANUARY 7, 2004 ADVISORY COMMITTEE MINUTES  
AND THE OCTOBER 16, 2003 BUSINESS MEETING SUMMARY**

**OCCUPATIONAL SAFETY  
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MINUTES OF THE ADVISORY COMMITTEE  
CONSTRUCTION SAFETY ORDERS, SECTIONS 1600-1601  
PILE DRIVING OPERATIONS  
January 7, 2004, Sacramento, California  
2450 Venture Oaks Way, Suite 410, Sacramento, California

The meeting was called to order by Chairman Michael J. Manieri Jr., Principal Engineer, Occupational Safety and Health Standards Board (Board). The Chairman began by welcoming the committee members on behalf of Mr. Steve Rank, Chairman of the Board, and Mr. Keith Umemoto, Executive Officer. Ms. Cathy Dietrich, Associate Governmental Program Analyst, was present to assist the Chairman in conducting the meeting. Also present from the Board staff was Mr. Conrad Tolson, Senior Safety Engineer. Committee members present were Patrick Bell, Division of Occupational Safety and Health (Division), Roy Berg, Division, Mark Burton, Operating Engineers Local No. 3, Don Dolly, Foundation Constructors, John Honaker, Kiewit Pacific, Dennis Jones (Petitioner), Pile Drivers Local No. 2375, Pat Karinen, Pile Drivers, Carpenters, Bridge, Wharf and Dock Builders Local Union No. 34, David Rhodes, Northern California Carpenters, Marti Stroup, Associated General Contractors of California, and Gary Young, Southern California Carpenters. The Chairman explained that Board staff had been directed by the Board to reconvene the earlier pile driving advisory committee members who met on August 18, 2000, in Anaheim, California, because the Board believed the proposal required further consideration by the advisory committee.

The Chairman reviewed the Board's policy and procedures concerning the goals and objectives for the advisory committee process. The Chairman also provided a brief overview of the criteria for developing standards consistent with the requirements of the Administrative Procedure Act (APA) and the Office of Administrative Law (OAL) requirements. The Chairman directed the committee's attention to the agenda and modified proposal which was to be adopted by the Board at the October 16, 2003, Business Meeting but which was sent back to committee before a vote was taken. The Chairman also distributed a letter dated December 30, 2003, from Mr. Karinen. The Chairman stated that in the course of the committee's deliberations Mr. Karinen's comment letter would be reviewed. The Chairman noted that Mr. Karinen was not present at the advisory committee meeting convened in 2000. The Chairman encouraged each member to ask questions, make comments and raise issues pertinent to the day's discussions.

The Chairman noted for the record the industry representation breakdown for the pile driving advisory committee meetings. The advisory committee meeting convened in 2000 had 9 committee members in attendance out of 24 members invited; 2 of which represented labor and 7 representing management. This advisory committee meeting convened today (2004) had 11 committee members in attendance out of 30 members invited; 8 of which represented labor and 3 representing management. Mr. Tolson then explained that the proposal was originally heard by the Board at the June 19, 2003, Public Hearing and as a result of public comments from labor that the

site safety plan (SSP) language was “self-policing” and not at least as effective as (ALAEA) the federal standard in 29 CFR 1926.603(c)(5), which addresses protecting employees beneath a working hammer from the hazard of falling objects, Board staff modified the proposal. Additional comments were received following issuance of the 15-Day Notice of Proposed Modifications on August 1, 2003, stating concern over whether the proposed SSP, even with modifications, was ALAEA the federal counterpart language. Mr. Tolson stated that the modified proposal was presented to the Board for adoption at the October 16, 2003, Business Meeting, but the Board decided that the proposal required further consideration and directed staff to reconvene the committee. The Chairman explained to the committee that at the August 2000 committee meeting, the issue of protecting workers who are underneath an operating hammer as required by the federal standard was hotly debated. In the final analysis, management was strongly opposed to having to either shut down the job or establish a safety zone beneath the operating hammer equal to twice the distance of the longest pile in which no employees could be present. As a result of that discussion and in an attempt to provide an acceptable, less onerous alternative, Board staff developed the SSP concept which all committee members, except the labor representatives, found to be acceptable. The SSP later became part of the original proposal, which was modified following the June 19, 2003, Public Hearing.

The Chairman requested Mr. Jones, Petitioner, OSHSB Petition File No. 410, to brief the committee on his petition request. Mr. Jones stated that he raised a number of issues with the Board, believing that Title 8 pile driving standards were out of date and less protective than the counterpart federal standard when it came to the issue of protecting workers (welders) working below an operating hammer from being struck by falling objects such as cut piles. Mr. Jones reaffirmed his feeling that the proposed SSP was both ambiguous and not ALAEA federal standards, which prescribe a number based on the twice the distance of the longest pile by which a danger zone is established where no employees are permitted when the hammer is running. Following Mr. Jones’ presentation, the Chairman directed the committee to review page 1 of 4 of the proposal, which was included as an attachment to their committee invitation letter.

Mr. Berg, with the Division, stated that he agreed with Mr. Jones to the extent that there should be a specific distance enumerated in the standard. Mr. Berg stated that typically pile-driving machines are older cranes, tip sections, but sections, with 60 feet of boom or more. Mr. Dolly disagreed with Mr. Berg’s assessment of typical pile driving boom length stating that pile driving is a technology that is changing, meaning that some pilings reach 125 feet in length. Overall, pile driving rigs are getting bigger and longer. Mr. Dolly stated that he has major problems coming up with a one size fits all distance that provides reasonable protection in all conditions. Mr. Dolly stated that prescribing a number as suggested by Messer’s, Jones and Berg is not the correct approach. A prescribed distance may be adequate in some situations and it may be totally inadequate in others. Mr. Dolly suggested a method that would rely on angles or proximity because prescribing a number to indicate the distance away from the operating hammer that would be safe for employees to work that would apply to all site situations is impossible.

Mr. Young stated that while it may be difficult to assign a distance number, a number should be assigned. Mr. Young conceded that the federal OSHA standard is overbearing given the length of some of the newer, longer piles. A SSP with a distance would be acceptable or a plan for how the employer intends to protect the worker; particularly the worker who is welding or chipping concrete. The Chairman asked the committee if there was general agreement that the federal

OSHA requirement in 29 CFR 1926.603(c)(5) that specifies a danger zone equal in diameter to twice the distance of the longest pile is unreasonable, impractical and onerous. The committee indicated that it did agree for the most part, that the federal standard was not reasonable.

Mr. Rhodes stated that the federal standard won't work in California, and that jobs need to be looked at on a job-by-job basis. Mr. Rhodes also stated that we have to find a way to be safe but efficient without increasing cost to the state of California. Mr. Rhodes stated the federal standard will increase construction costs in California.

The Chairman again confirmed the committee's opinion that the federal "one size fits all" approach to delineating an area around or beneath an operating pile driver hammer is unacceptable. At the same time, the committee still feels strongly that the danger zone concept (the area where all non-essential personnel are to be kept out of while the hammer is running) is a very important concept which should be articulated in Title 8 pile driving standards. The Chairman proposed the SSP plan be further modified to require the employer to establish a safety zone around an operating hammer that will protect those persons working underneath the rig from being struck by objects/materials that could break off the top of the pile driving rig. Mr. Dolly clarified that the committee appears to be concerned with pile chippers and welders, but that the issue appears to be much broader than that. There are other employees/trades that are under the control of the pile driving contractors, iron workers, carpenters, etc. Mr. Dolly asked Mr. Jones if they are included too, rather than just welders fitting pile or pile cut-off people. Mr. Jones stated that was correct because his petition was based on the federal language which focuses on workers involved in welding or workers involved in cutting off pile and that it seemed easier to get the Standards Board to address those trades because federal OSHA had done so. Mr. Dolly wondered whether it would be his responsibility to impose his safety plan upon other crafts/trades people at the jobsite, or would it be the general contractor's competent person's responsibility.

The committee, both labor and management, also agreed that the proposed SSP was problematic from an implementation and administration standpoint since it is not clear who is responsible for ensuring that it is followed. The main problem is that there are so many different types of crafts, trades, and contractors that may be present on a given worksite where pile driving is taking place. If one follows the federal standard, it would not be unreasonable to expect that the distance parameter specified in the federal standard could encompass the entire jobsite or at least a good portion of it to the extent that many individual trades persons and subcontractors would be affected effectively, restricting their ability to get the work done and causing delays and raising construction costs. The Chairman then asked the committee if the federal standard is intended to protect every tradesperson on the jobsite or just those at greatest risk of being struck by cut piles and other debris that might fall from the top of the operating hammer? Mr. Jones responded that it was intended to address those persons most at risk of being struck by falling objects, i.e., pile cutters, welders and chippers. Mr. Bell, with the Division, stated that he understood the federal standard to apply to workers who cut piles and no other trades. Mr. Bell stated that it appears the committee was in agreement that other crafts/trades other than those persons directly involved in pile driving operations need to be subject to the same safety (danger) zone restrictions as deemed necessary and reasonable by the committee. This meant pile drivers not attendant to the rig would be covered.

The committee then discussed the nature of the risk to workers below an operating hammer and agreed that the possibility for being struck by an overturning rig, leads, chards or chunks of concrete pile, are all real on a pile driving jobsite. The risk factor is proportional to whatever creates the greatest risk for coming in contact with employees working in proximity to the operating hammer. If the leads constitute the greatest risk then the length of the leads should be the determining factor for the safety zone. Also, safety zones might be determined by the operating radius of the crane in cases where the job requires the load to be swung or the crane boom to swing, or as the nature of the work progresses and changes then other parameters might come into play. The Chairman asked Mr. Bell whether the Division was proposing a standard that would be more stringent than the federal standard. Mr. Bell responded that they were. The Chairman asked the committee if they believed a standard more stringent than the federal standard was necessary in California. The committee felt that it was not necessary to be more effective, but equally effective. Mr. Bell clarified later that they might advocate a twice the distance of the longest pile driving component rather than twice the distance of the longest pile which would render their proposal more reasonable and not as stringent as the federal standard.

Mr. Dolly stated that if he understood the Division's suggested measurements correctly, on a typical pile driving jobsite if the crane swings 180 degrees to hoist the pile the working radius becomes 60 feet. Based on measuring from the crane's center of rotation (if it was measured from the working point of the pile it would be further yet), no one can work within that 30 feet because the crane is there, that 30 feet is added to the length of the leader which would be 150 feet which equals 180 feet. If 25% is added it's over 200 feet. When the crane swings back the other way to drive the pile it's over 200 feet in that direction and there is no way to have work forces move out while you pick a pile and move back in while you drive a pile. That would require over a 400-foot clear radius around the crane's center of rotation and that would make the job and the Division's proposal unworkable.

Mr. Dolly stated that when hoisting the piling, the object is to get the piling under the hammer. To do that, typically the piling is laying flat on the ground and it has to be hoisted vertically by the crane. At that point it takes some careful manipulation manually to get the piling under the hammer. Once it is under the hammer, there is further mechanical and manual manipulation to get the bottom of the piling inside the leads and captured either with a gate or a chain or some other mechanical device that holds the piling in the leads. When the bottom of the piling is captured and the top of the pile is captured by the bonnet or skirting of the hammer, it is in a much safer position and the risk of things falling or tipping are greatly reduced. The risk is lessened once the hammer starts driving and the bottom of the piling is actually in the ground and axial pressure is holding the pile. Mr. Dolly stated that the federal standard refers to an operating hammer and setting up a safety zone that is twice the distance of the longest pile which in his opinion does not make a great deal of sense. Mr. Dolly stated that you should be concerned about the pile falling when the pile is free and being hoisted, not once it is captured and the hammer is running at which point the concern is chards of concrete (broken pile) or bolts falling.

Mr. Rhodes said concrete pile is mentioned in the federal standard. Mr. Bell stated that the federal standard is not specific to concrete piles; it really applies to all driven piles. Despite this, Mr. Rhodes stated that concrete piles built in 1926 were built differently than today, as they used to use rebar and it was cast. Today's concrete piles are pre-stressed. They are not going to break while picking them and have chards of concrete flying everywhere. It is hard to come up with a

one-size-fits all number. A 150-foot long pile that may have to be spliced being driven on a small lot in downtown San Francisco would require a safety zone based on a 300-foot perimeter. It is not going to happen. The federal standard (the one size fits all approach) is totally unreasonable. Contractors won't drive pile and instead have the holes drilled at higher cost putting the pile driving business in serious jeopardy of going out of business in California.

Mr. Jones stated that the federal standard was referring to pile cutters. Mr. Jones commented that claims that the federal standard will shut the job down is not correct, because you only need to apply it to the cutters and not the other trades. Mr. Jones explained the vulnerability of the cutters/welders being struck by falling objects around the operating hammer. He stated that because of the way they work with their backs down and their heads down they are not looking and not paying attention to the pile going in so close to them. Other trades however are walking around and looking up and down and are not at the same risk as the welders or cutters. They will get out of the way when the pile drivers pick the pile up and loft it.

Mr. Honaker stated that he disagreed with the Division's earlier statement that all trades should be required to follow the requirements of the SSP and should be afforded the same protection as those individuals who are at greatest risk such as welders, chippers, etc. This is because the average contractor does not have control over the other trades, and a zone around the pile driving rig as required by the federal standard is really unworkable. He stated that he thought he could come up with a safety zone based on a number based on the swing radius of the crane that might work, but that it would still be difficult. The Chairman asked if Title 8 standards already address this issue. Mr. Bell stated that it did not. The Chairman then took a brief recess off the record while the committee examined a number of digital photographs of various types of pile driving operations provided by one of the committee members.

Mr. Karinen stated that in 1985 someone hired him as pile driving foreman. He worked in that capacity until 2001 and was fortunate to have only one lost time accident in all the crews he worked in that wasn't self inflicted. It was his impression that job safety was the foreman's responsibility. He stated that in a typical city pile-driving scenario there are many different operations going on besides pile driving. Mr. Dolly stated that he had misgivings on the effectiveness of SSP as a result of his work with Cal Trans. He stated that he had written many site specific safety plans, usually as much as two months before his company got on the jobsite, based on drawings and drive-bys, before dirt is moved and grading is done.

Mr. Dolly stated that while he does not oppose the concept of a SSP, he believes there has to be a method or procedures for a competent on-site representative to be able to amend the plan based on real time and current access on the site. Mr. Dolly stated that he would hate to write a standard that would require that on every job his company went on, he would have to do this two or three months ahead of the project submittal in intricate detail, recognizing hazards that may or may not be present. Then the foreman needs to be able to make the plan that someone drew up at his/her desk months ago work today. That is an unreasonable burden placed upon the foreman. The foreman should have the ability to amend the plan. The Chairman indicated that the proposal already addresses this issue in subsection (a)(2) which requires any changes in the plan to be approved by the competent person. Mr. Dolly responded by stating that there should be language in the proposal that specifically states that the pile driver's competent person may make and approve

amendments to the SSP. The Chairman stated that if the committee decides to retain the SSP language such a modification could be discussed and, if necessary, made.

The Chairman then addressed the issue of coming up with a numerical distance for the safety or danger zone around the pile driving rig and what such a factor should be based on. Mr. Burton stated the number should be based on the working radius of the crane or the center pin of the crane. The pile is going to be set within that area which also covers the swing radius of the crane where there would be no employees permitted. Mr. Rhodes disagreed with Mr. Burton and stated that establishing the danger zone should be done on a site-by-site basis and covered within the SSP. Mr. Bell stated that he was not convinced that the working radius of the crane is a number, because if a problem were to develop while picking pile, that pile might fall somewhere beyond the working radius of the crane and that is a problem. The number should be based on the longest component of the rig, such as the leads. However, there should be consideration on a job-by-job basis.

The Chairman asked the committee if the Division's method would work to which a number of committee members stated it would not. Mr. Honaker asked what to do about carpenters and the pile driving crew that is working with the pile. Do they have to leave the jobsite and then come back to connect the choker? The crane operator sits within 20 or 30 feet. The point is that there are workers in the danger zone as established by the longest lead, as suggested by the Division, that simply have to work and would not be able to. The pile driving contractor is going to have to deal with many other crafts within the danger zone that they are not going to have any control over that are going to have work right next to the pile drivers. As soon as the first pile is driven, the other crafts come onto the site. The pile driving foreman will not be able to assure that all these people stay out the danger zone of such a large circumference, as would be created by using the longest lead method of determination as proposed by the Division. Mr. Honaker categorized the Division's proposal as unreasonable and unworkable.

Mr. Jones stated that when driving pile and the crane operator is sitting in the driver's seat of the crane, the workers that are driving pile are watching the pile being driven; and are focused on what is going on around them. Other trades, such as carpenters, that come onto the site are also aware of what is going on around them with respect to the pile being driven. The welders and chippers who are not aware because they may have their welding hoods down or who are chipping are most at risk for being struck by debris coming off the top of the pile driving rig. Mr. Rhodes again stated that if the other trades access to the jobsite is impeded or prevented due to danger zone restrictions, the work cannot be done. Eventually, instead of using pile drivers, the contractor will choose to drill the holes and expose employees with impunity since the drilling process will not be subject to pile driving restrictions and would adversely affect production schedules. A lot of pile driving operations could be put out of business and pile drivers, out of work while driving up construction costs.

The Chairman attempted to re-focus the committee's attention to the fact that California needs only to effectively address the same issue addressed by federal OSHA in 29 CFR 1926.603(c)(5) that specifically addresses employees working under piles that are cut. The Chairman urged the committee to consider whether or not the proposed SSP, as modified by the Board staff, effectively addresses that issue. The committee's consensus was that the SSP still falls short of the goal to protect those employees most at risk of being struck by falling objects that may be ejected from the

top of the pile-driving rig (e.g., welders, chippers). Mr. Young stated that the problem is (1) the chipper working under the operating hammer near the leads who is wearing hearing protection and cannot hear what is going on and (2) the welder whose vision and hearing are both somewhat compromised. They need to be protected. The compaction process often throws debris, pieces of concrete, bolts, etc. Welders and chippers won't know what hits them if they are not told and that is not possible since no one knows what could be ejected from the rig. Mr. Young stated that the committee needs to decide where the danger zone is, is it around the leads or around the whole rig? Mr. Young and Mr. Bell stated the zone should be established around the leads.

Mr. Rhodes asked if the same zone would be established when drilling pile, as in caisson drilling? Mr. Honaker stated that the safety or danger zone is really going to be a much larger area than just around the leads, it should encompass the swing radius of the crane which would address the lofting operation. Again, Mr. Young stated the real hot zone is beneath the operating hammer where employees cannot hear anything. Mr. Bell stated that the zone will vary from site-to-site, job-to-job and will vary between different pieces of equipment. Given all the potential variations, the Chairman stated that it might require the committee to develop a large table of scenarios and formulae to determine what the danger zone should be. The Chairman suggested the committee take a more performance oriented approach that focuses on the danger zone, specifically stating (1) which employees are prohibited and (2) address development, implementation and maintenance of the zone around an operating hammer without specifying a number and (3) place it in the SSP.

Mr. Dolly described the pile driving crew size and responsibilities. The current pile driving crew size provides for enough workers to lookout, forewarn and protect other members of the crew performing pile driving operations and effectively protecting the pile driving workers. Mr. Dolly stated that he cannot conceive of a danger zone number that would work in all situations. If we base the number on things like the leads, it is going to radically change the way pile driving is conducted in California. Mr. Dolly stated that crew size was negotiated via the collective bargaining process. The best person to determine the necessary crew size is the pile driving contractor, not the State of California.

The committee then deliberated over the issues of competitiveness of pile driving against alternative, more expensive piling methods such as screw auger drilling, caisson drilling, foundation drilling, etc. They concluded that if a numerical danger zone requirement became law in California, it could effectively put pile driving out of business and drive up construction costs tremendously. The Chairman stated that the committee was convened to deal specifically with pile driving operations, consistent with the scope of the standards in Section 1600-1601 and Mr. Jones' petition as adopted by the Board. Any departure from that would be viewed as an expansion of the scope and would require the staff to terminate the present rulemaking and start all over. The committee deliberated and decided that they do not want to expand the scope of the present rulemaking, but that they would like to take a performance approach to the issue and develop language to address the falling object hazard to certain trades working beneath the operating hammer.

Mr. Jones reiterated that he is only after a Title 8 standard that would protect the worker chipping pile or welding beneath the running hammer. He is not interested in opening up the discussion to alternatives to pile driving and developing standards for those operations which he believes as does

the Division, are already covered by other Title 8 construction industry standards. He stated that he would like to see welders, cutters, and chippers protected by a zone that extends at least a pile length away. Various members of the committee responded that it is not possible to do that. Mr. Honaker stated that is not possible, because there will be days when you are cutting pile and will be a need for other trades to be present. We cannot establish a pile length safety zone and prohibit pile-driving employees from being present and not severely interfere with the ability of other trades to be on site to do their work.

Mr. Bell stated that he did not agree with Mr. Jones “to change this by limiting a number” and proposed “a pile distance away concept” for the danger zone as mentioned earlier as the number to use in setting up the danger zone as given in the federal standard. To be ALAEA federal OSHA, a number needs to be established, although Mr. Bell did not agree with the federal standard of twice the distance of the longest pile. Mr. Bell stated that finding a magic number would be difficult. Perhaps some other value could be chosen that would be equally effective. Mr. Bell opined that the safety zone would be defined by the swing radius, but not be the swing radius, but in fact, be some distance around the leads as the crane swings through a given radius. Mr. Bell stated that defining the safety zone is what the committee needs to do.

The Chairman asked the committee if there was agreement on the need to define the safety/danger zone or at least give guidance on its definition. The committee responded by stating that they would prefer to come up with performance based language that would effectively address the issue of protecting those workers most vulnerable to being struck by falling materials beneath an operating pile driving hammer. Mr. Berg stated that in his opinion, federal OSHA would probably not approve the current, modified SSP unless it contained definitive language addressing a safety zone requirement.

The Chairman quickly refreshed the committee’s understanding of the current proposal by summarizing the SSP contents. Mr. Bell pointed out that the SSP does not specifically address how far away from the piles being set or driven employees must be. He concluded that the SSP, as modified, is not ALAEA the federal standard. The Chairman responded by stating that the federal OSHA Region IX, and not the committee, determines equivalent safety to be ALAEA the federal standard. Staff believes that a plausible rationale could be made that the SSP is ALAEA. Mr. Bell stated again that since there is no specific language addressing an area beneath the operating pile driver hammer where employees may not be present when piles are cut in the SSP, it will not be judged ALAEA the federal standard. The Chairman then challenged the committee to come up with either new language to replace the SSP or modify it to render it ALAEA the federal standard.

The committee reasoned that it was their understanding that only things needing to be addressed to be ALAEA the federal standard was the issue of establishing (requiring) a danger zone beneath the operating hammer that would protect employees on the ground. The Chairman and the Division agreed that that is all that needs to be addressed. The Chairman determined that the committee expressed a consensus to delete all of the current proposed SSP language, replacing it with new language that specifically addresses the development, use, and maintenance of a danger zone beneath the running/operating hammer of a pile driver when piles are cut. Mr. Dolly stated that if that is all that really needs to be addressed, then the SSP should be deleted and the committee should focus on an area around the hammer that will protect chippers, cutters and welders. Mr.

Dolly was confident the committee could do that. Mr. Jones agreed that the committee should focus their deliberations on addressing the hazard of chippers, welders and cutters working beneath the operating hammer.

The Chairman informed the committee that there would be a 90-minute lunch break, followed by a continuation of the morning's discussion on replacing the SSP with new language specifically addressing establishment of a danger zone beneath the operating hammer of a pile driver. The committee agreed with the Chairman. Mr. Dolly stated that he recognizes Mr. Jones' concern over protecting welders, chippers and cutters (people who have their eyes off the primary work) under the running hammer and that perhaps the committee made more out of the whole matter than necessary. California should meet or exceed the federal standard. The Chairman recessed for lunch at 12 o'clock noon.

Following the lunch break, the committee continued deliberations without Mr. Berg and Ms. Stroup who had other commitments. Mr. Bell remained to represent the Division. The Chairman then presented alternative language to the committee that could either stand-alone or be inserted as a new paragraph in the proposed SSP. The Chairman's proposed language established a danger zone based on the swing radius of the crane and listed those employee trades that would be prohibited from working in the zone. Mr. Bell commended staff and stated he generally embraced the proposal with a few modifications. He made it clear that the term "diameter" should replace the term "radius" to ensure that the proposed language was ALAEA federal OSHA's twice the length of the longest pile requirement.

Mr. Rhodes stated that during the lunch break he and a number of other committee members discussed abandonment of the SSP and introduced the following language:

"The contractor shall develop means and methods to protect workers who are welding, cutting and chipping pile around/during pile driving operations."

Mr. Bell stated that he agreed it was short and sweet; however, he had his doubts that federal OSHA would find it ALAEA their standard. The federal standard has a number in it and Mr. Rhodes' proposal does not. The Chairman stated he was aware that federal OSHA is contemplating revisions to their crane and pile driving standard that could result in abandonment of their "twice the distance of the longest pile" approach. Mr. Burton confirmed that federal OSHA would be meeting February 4, 5 and 6, 2004<sup>1</sup> to discuss such revisions and that he hoped to attend the meeting in Washington D.C. Since the federal standard went into effect, there have been a number of federal interpretations suggesting problems with the two times the longest pile approach. In addition, Mr. Tolson noted that there has been a lack of evidence to support that federal OSHA has been enforcing 29 CFR 1926.603(c)(5) to any extent. The Chairman also informed the committee that being verbatim of federal OSHA may not always be in the best interest of employees and employers in California and that California has come up with creative ways to effectively address a given safety issue. To date, we have no documentation to support a finding that this approach has failed California workers.

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<sup>1</sup> To date, the Occupational Safety and Health Standards Board has learned that Federal OSHA is still in deliberations regarding possible revisions to their standards.

Mr. Jones stated that Mr. Rhode's proposed language which would eliminate the SSP language was to the point. He felt that if the language forced the contractor to be accountable for those vulnerable employees and other trades working beneath the operating hammer, then the language was acceptable to him. Mr. Bell again raised the issue of whether Mr. Rhodes' proposed language was ALAEA the federal standard, because it sounded fairly ambiguous. Mr. Bell expressed concern that in the event an employee were found "dead in the hole" and the compliance officer attempted to determine compliance, all the employer would have to produce is a piece of paper stating their means and methods. Consequently, Mr. Bell stated that in his opinion, Mr. Rhodes' language was unenforceable, as it establishes no level of performance that is meaningful. The dead guy is dead and the guy that killed him unaccountable.

Mr. Rhodes responded by stating that he does not tell anyone that he is an expert on what the OSHA standards say. Mr. Rhodes gave an example of a jobsite situation and stated that as currently regulated, there is nothing to protect employees. Mr. Rhodes stated that in his proposal the contractor has to have a means and a method that is going to identify how employees will be protected. The Division could ask the contractor up front for a plan. If the contractor does not have a plan, the Division could issue a citation. Mr. Rhodes further stated that his pile drivers and business agents are not so shy that they would not ask the contractor how are you going to protect me? Mr. Rhodes indicated that he has shut down jobs that appeared unsafe to him based on his 30 years of pile driving experience. Despite this, Mr. Bell stated that Mr. Rhodes' proposal would not pass muster on specificity or clarity. Mr. Rhodes was adamant to the extent that he felt his proposal would be effective in preventing accidents and federal OSHA would accept his language.

The Chairman stated that there are a number of criteria that every standard must meet in order to be judged acceptable both by the Board and the Office of Administrative Law. The standard must be clear, enforceable, as well as necessary to ensure the safety and health of employees. The Chairman stated that he applauds Mr. Rhodes' efforts to ensure a safe workplace, but that he supports the Division's statement about enforceability and clarity and that these issues should be sorted out at the advisory committee stage.

Mr. Young asked the two employer representatives what they thought of Mr. Rhodes proposed language. Mr. Honaker stated that the language appeared to bring the committee back to what federal OSHA requires and wondered whether it was necessary to have Mr. Rhodes language. Again, he stated that the federal two times the longest pile distance wouldn't work in California, as it is an outdated concept. Contractors today can only protect a much smaller area. Mr. Dolly asked if it was possible to write specific, enforceable language without naming a distance. He also asked if it was possible to name a distance other than what federal OSHA requires and have them approve it. Mr. Dolly stated that the standard should not name a specific distance but allow for job specific arrangements for safety. Mr. Bell thought that a distance factor based on the length of the leads might work.

Mr. Jones stated that the federal standard was written only concerning the operating hammer with the pile already under the hammer. Mr. Jones stated that normally when a pile is started and the hammer is put on for the first time, chards of concrete are going flying. Mr. Jones stated that he favored a safety zone (radius) that is based on 75% of the pile length away from the hammer. Mr. Bell asked what is the committee's understanding of pile driving operations. In the Division's

opinion, pile driving includes handling, placing and driving. Mr. Jones stated that Title 8 standards were adequate for lifting the pile and that is not a big issue because everyone on the site is generally tuned in during the picking operation.

The Chairman having heard many committee arguments and discussion to this point suggested the following language:

“A danger zone shall be established around the operating hammer where employees cutting, chipping or welding will be protected from the hazard of falling objects.”

Mr. Jones agreed with the language. The Chairman explained that his proposed language is targeted at protecting the people who are not necessary to the pile driving operations. Mr. Bell asked the Chairman to read the federal standard one more time for comparison purposes. The Chairman again emphasized that what the proposal does is eliminate the exposure by keeping employees at risk away from the falling object hazard. Mr. Bell stated that to be ALAEA the federal standard employees at risk must be prohibited from being in the danger zone. Mr. Bell stated that employees who are not necessary to the pile driving operation must be prohibited from being in the danger zone.

The Chairman agreed and revised his proposal to read:

“A danger zone shall be established around the operating hammer where employees other than those involved in cutting, chipping and welding will be prohibited.”

Mr. Honaker asked if it were possible to define the danger zone. Mr. Rhodes suggested the following language:

“A danger zone shall be established around the operating hammer where employees involved in cutting, chipping, or welding pile will not be allowed so as to protect them from the hazard of falling objects.”

The committee recognized that if you are in the pile trade you need to be with the rig. If you're not, the proposed language would prohibit those employees from working around the operating hammer. Mr. Bell agreed that chippers, welders, and cutters do not need to be in the danger zone (to be established by the pile driving contractor). Mr. Bell stated that Mr. Rhodes' proposal is much more enforceable and clear, and provides a semblance of equivalency with the federal standard while allowing pile drivers to do their work. The Chairman asked the committee whether they supported Mr. Rhode's proposal. The committee's consensus was to eliminate the SSP language in favor of Mr. Rhodes language and include clarification on who establishes and is responsible for maintaining the zone.

The Chairman suggested one more refinement of Mr. Rhodes' proposal for clarity to read as follows:

- (a) A danger zone shall be clearly delineated around the operating hammer where employees involved in cutting, chipping or welding operations shall be prohibited as to protect them from the hazards of falling objects.

- (1) The employer shall establish the danger zone.
- (2) The danger zone shall be maintained under the supervision of a competent person.

The Chairman went on to say that delineation of the danger zone might be accomplished any number of ways, stanchions/warning lines, barrier tape, k-rail, cones, delineators, etc. Regardless of the method the employer chooses, the employer ensures the delineation is recognizable to the employees and that the zone is maintained when it is needed. The industry representatives stated that they do not want to be held to a prescriptive standard for delineation and prefer a more performance-based approach. On behalf of the Division, Mr. Bell stated the proposal sounds very good.

The committee reviewed the Chairman's revisions, and it was the committee's consensus recommendation that the existing proposed SSP language be deleted in favor of the language as revised by the Chairman. Mr. Dolly asked what would be acceptable methods of delineation. Various members of the committee indicated that it could be achieved via a variety of methods and was not problematic or certainly much less problematic than the federal distance specification of two times the longest pile.

Having achieved consensus on the issue of protecting pile drivers working beneath an operating hammer, the Chairman then directed the committee's attention to a letter from Mr. Karinen dated December 2003, and reviewed the remainder of the proposal. The committee identified a number of issues they believed required further modification, specifically:

Requiring that a blocking device be not only provided but used at all times while employees are working under the pile driver hammer, putting back the EXCEPTION statement previously deleted to Section 1600(b) which requires the use of a blocking device since it was recognized that on occasion an employee will have to lean through the leads to spot the pile under the hammer. The committee also discussed Section 1600(d), and it was the committee's consensus that the use of platforms should not be mandatory; but that when they are used they shall be designed as provided in the existing language. Finally, in subsection (g) the committee agreed that this subsection should be modified further to state that when employees need to go aloft on sheet piling that the employee shall use either an aerial device or ladder, the term "...aerial device..." was placed in the Exception to (g) for consistency. The committee stated that there was no necessity for further modifications to the proposal including Section 1601.

The Chairman then explained the ramifications of the Governor's Executive Order to the rulemaking process and the pile driving proposal. The Chairman led discussion on the cost impact of the proposal. Representatives from Kiewit Pacific and Foundation Constructors, Inc. stated that the revised, modified proposal was reasonable and that the cost impact of having to delineate the danger zone is softened greatly because of the performance-based language only requiring the danger zone be clearly delineated and not by specifying the delineation method. Some employers might use k-rail, others barrier/warning tape, others might use scrap lumber to create a type of reusable stanchion that can be used from jobsite to jobsite. The cost of these materials, which are readily available to the contractor, is proportionally insignificant compared to the cost of a typical pile driving operation which can run in the hundreds of thousands or millions of dollars.

The Chairman thanked the advisory committee for their hard work and perseverance as there appeared to be a solid consensus to proceed to the adoption phase of the rulemaking process with a modified Section 1600 proposal.

There being no further deliberation or comments, the meeting was adjourned at approximately 3:00 p.m.

## OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

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### SUMMARY BUSINESS MEETING

October 16, 2003  
Sacramento, California

#### CALL TO ORDER AND INTRODUCTIONS

Chairman Rank called the Business Meeting of the Occupational Safety and Health Standards Board to order at 10:40 a.m., October 16, 2003, in the Auditorium of the State Resources Building, 1416 Ninth Street, Sacramento, California.

#### ATTENDANCE

##### Board Members Present

Chairman Steven L. Rank  
Larry Gotlieb  
Robert J. Harrison, M.D.  
Art Murray  
Jesse Navarro

##### Board Members Absent

Liz Arioto  
José Moreno

##### Board Staff Present

Keith Umemoto, Executive Officer  
Barbara Steinhardt-Carter, Legal Counsel  
Michael Manieri, Principal Safety Engineer  
Marley Hart, Staff Services Manager  
Leslie Matsuoka, Staff Analyst  
Melony Hernandez, Executive Secretary

##### DOSH Representatives

Len Welsh, Acting Chief  
Steve Smith, Supervising Industrial Hygienist  
Patrick Bell, Senior Safety Engineer

#### OPENING COMMENTS

Chairman Rank indicated that this portion of the Board's proceedings is closed to comments from the public, unless specifically requested by the Standards Board. The purpose of the Business Meeting is to allow the Board to conduct its monthly business.

MOTION A motion was made by Art Murray and seconded by Jesse Navarro to adopt the proposed safety orders.

Chairman Rank asked the Board members if they had any questions.

Board Member Murray commented on the importance of accurate information in the rulemaking proposals. A Department of Transportation representative had mentioned that the statement contained in the Initial Statement of Reasons that CalTrans had already implemented the 10 foot-candle was incorrect. Mr. Murray thanked the Board staff for correcting this misstatement.

With no further discussion, Chairman Rank asked for roll call.

#### ROLL CALL

VOTE A roll call was taken, and all members present voted "aye". The motion passed.

Chairman Rank announced the next proposal.

2. TITLE 8: CONSTRUCTION SAFETY ORDERS  
Chapter 4, Subchapter 4, Article 12  
Sections 1600 and 1601  
Pile Driving and Methods of Unloading Piles  
(Heard at the June 19, 2003 Public Hearing in Sacramento)

Mr. Manieri stated that this rulemaking proposal was a result of the granting of OSHSB Petition File No. 410 by the Board on June 15, 2000.

The Petitioners requested the Board to address outdated pile driving terminology and resolve any discrepancies between Title 8 and Federal pile driving regulations. A Board directed advisory committee was convened. The committee included representatives from labor, management, the Division, and the Petitioners. The proposal to the Board for public hearing represented the committee's consensus recommendation. As a result of public comments received, modifications to the proposal were made which included clarification and enhancement of the proposed Site Safety Plan requirement, intended to address site hazards including those created by employees working in proximity or under piles being driven or the removal of the tops of piles. The modified Site Safety Plan now would require the plan to be developed, implemented, and maintained by a competent person. Board staff believes compliance with the modified Site Safety Plan will effectively address Federal OSHA's less practical requirement that a safety perimeter around the pile equal in diameter to twice the distance of the longest pile be implemented.

Following the mailing of the 15-day Notice of Modifications, comments were received and responded to as indicated in the Final Statement of Reasons. However, these comments did not result in further modification to the proposed language.

Board staff recommends the Board adopt the proposed amendments to CSO Sections 1600 and 1601 as modified.

MOTION A motion was made by Jesse Navarro and seconded by Larry Gotlieb to adopt the proposed safety orders.

Chairman Rank asked the Board members if they had any questions.

Board Member Murray stated his concerns about the proposal. He reviewed the attendance roster of the advisory committee and the advisory committee minutes. In reviewing the information, he was concerned with the term 'consensus.' He was concerned with the composition of the advisory committee: 5 management representatives and 2 labor representatives (the Petitioners), and their ability to form consensus without employers and employees represented at the meeting. Also, Member Murray feels that some guidelines within the proposal do not equal federal guidelines. He is concerned with the language being taken out and feels the changes are too concise.

Chairman Rank asked Member Murray if he had any recommendations.

Board Member Murray answered that he would like the Petitioners' concerns ironed out.

Chairman Rank stated that he also has read the letters and noticed the conflicting issues and questions over terminology. The topic should be revisited to make sure the Board is moving in the right direction.

Board Member Navarro stated that the reports are very clear and detailed, but it would be very helpful to have pictures, a video, or diagrams available to further the understanding of the issue.

Board Member Harrison stated that he needs clarification of the 50-foot rule. There was a comment made that construction sites in California are different than construction sites in the other states. He questioned that statement and questioned on what basis the Board was changing the federal rule. Why is the Board eliminating the 50-foot rule, is a site safety plan better so there can be flexibility?

Chairman Rank asked Mr. Manieri if it was possible to revisit these concerns.

Mr. Manieri stated that there was obvious Board concern with the regulation. As to the composition of the advisory committee, the Board strives to balance participation from both labor and management, but cannot control attendance. There were comments recorded at the advisory committee meeting from industry representatives regarding the "twice the distance of the longest pile" requirement of federal OSHA, because some of the piles would require an exceptionally large perimeter. The 50-foot rule was a suggestion by a labor representative that disputed the recommendation to follow the federal rule. Mr. Manieri stated that the Board can direct staff to reconvene the committee for the specific purpose of revisiting the issue of the safety plan versus the federal requirement. Another advisory committee meeting to revisit this proposal could be incorporated into the 2004 work plan.

Chairman Rank clarified that these issues are not a reflection of the manner in which the advisory committee was conducted. There was no problem with the way the advisory committee meeting was conducted. There are other items that need to be clarified. He asked for the Board to recommend revisiting the issues and asked when the advisory committee could meet again.

Mr. Manieri stated that a meeting could be scheduled in the first quarter of 2004.

Chairman Rank clarified that there would be a notice for the advisory committee when it was scheduled.

Mr. Manieri stated that about two months after the advisory committee meeting, the proposal would be brought back to the Board.

Chairman Rank clarified that due to the concerns of the Board members, the Board could either vote 'nay' on the proposal, or redirect back to Board staff.

Board Member Navarro withdrew his motion to adopt. The proposal was referred back to Board staff for further development.

Chairman Rank announced the next proposal.

3. TITLE 8: GENERAL INDUSTRY SAFETY ORDERS  
Chapter 4, Subchapter 7, Article 12  
Section 3427(a)  
Tree Work – Safe Work Procedures  
(Heard at the July 17, 2003 Public Hearing in Los Angeles)

Mr. Manieri stated that this rulemaking proposal requires trees to be visually inspected to determine the safest method of entry prior to employees climbing the trees or attempting to gain access to perform ornamental thinning, pruning, spraying of trees and foliage to enhance growth, control pests, or prepare the tree for removal.

Existing Section 3427(a)(1) requires the tree to be inspected prior to climbing, but does not specifically state that the safest method for gaining access be used. It also does not state who is to make that determination.

The modified proposal would require that visual inspection of trees prior to entry be performed by a qualified person who is to ensure that a safe entry method, rather than the safest method which implies that only use of an aerial device is permitted, is used.

For employees to access trees safely and the regulation to be effective four things must happen to close the safety loop: (1) the tree must be visually inspected, which is covered by the existing rule, (2) a qualified person must determine a safe method to gain access, which is covered by the existing rule, except that it needs to be clear about the qualified person, (3) a safe method must be implemented, which is not covered by the existing rule, and (4) the employee must be trained in the safe method to gain access which is covered by Section 3203, and qualified tree workers are trained as such.

The proposal received three written comments, which resulted in modification of the proposal. Board staff recommends that the Board adopt the proposed amendments to Section 3427(a) as modified.

**MOTION** A motion was made by Art Murray and seconded by Jesse Navarro to adopt the proposed safety orders.

Chairman Rank asked the Board members if they had any questions.